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Dental Hygienists' Knowledge, Attitudes & Practices Regarding Oral Cancer Detection & Prevention

Description

According to the National Cancer Institute, an estimated 35,310 new cases of oral cancer were expected to be diagnosed in the United States in 2008, and an estimated 7,590 people were expected to die of the disease. Statistics over the last decade reveal an increase in incidence and mortality rates for this disease. These statistics should encourage clinicians to improve awareness of and early detection of oral cancer.

Early detection of oral cancer is the responsibility of dental practitioners. Dental hygienists have a unique opportunity to provide oral cancer examinations for their patients. The purpose of this research was to investigate knowledge and practices of dental hygienists regarding oral cancer and explore issues related to early detection and prevention of oral cancer.

Disciplines

Dental Public Health and Education | Dentistry

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Dental Hygienists' Knowledge, Attitudes & Practices Regarding Oral Cancer Detection & Prevention

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Introduction

According to the National Cancer Institute, an estimated 35,310 new cases of oral cancer were expected to be diagnosed in the United States in 2008, and an estimated 7,590 people were expected to die of the disease. Statistics over the last decade reveal an increase in incidence and mortality rates for this disease. These statistics should encourage clinicians to improve awareness of and early detection of oral cancer.

Early detection of oral cancer is the responsibility of dental practitioners. Dental hygienists have a unique opportunity to provide oral cancer examinations for their patients. The purpose of this research was to investigate knowledge and practices of dental hygienists regarding oral cancer and explore issues related to early detection and prevention of oral cancer.

Methods

A qualitative research design was used for this study. A feature of this type of research is availability of data from respondents and their free-will to express their opinions. However, it lacks non-verbal clues which are crucial for observations. It also relies heavily on the genuineness of the respondents who may feel pressured to answer in a certain manner or lack motivation to participate fully.

A survey instrument designed by Charles W. LeHew, Ph.D. and Joel Epstein, DMD, MSD, FRCD(c) was modified into 38 questions designed for dental hygienists. In September 2008, this survey was sent to 150 dental hygienists working within a managed care corporation with clinics in Oregon, Washington and Idaho. Response rate was 54% with 81 responses received. Length of time since graduation ranged from 2 to 37 years, with a median of 17 years. The mean number of years of experience was 15. Excel and Jump programs were used for statistical analysis.

Results

Knowledge: The survey assessed respondents' knowledge including most common types of oral cancer, locations, risk factors, asymptomatic character of early stages, lymph node involvement & impact of early detection. One point was given to each correct response. The scores were transformed into percentages for easy analysis.

The mean knowledge score was 66%. Many respondents lacked crucial knowledge of important information related to oral cancer.

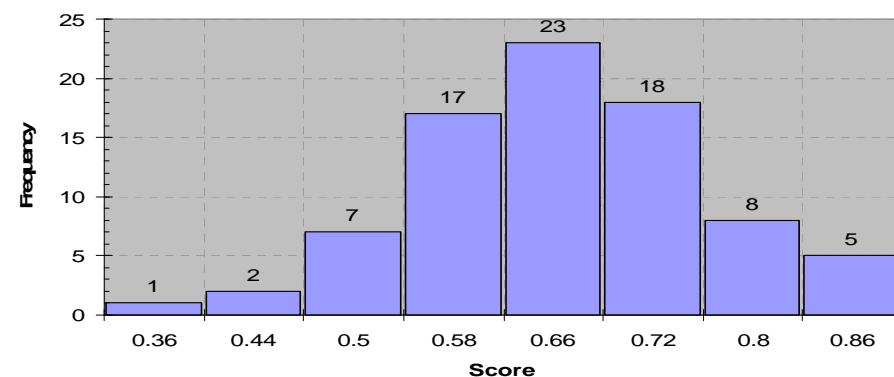


Figure 1. Distribution of knowledge scores

Early Detection: Most respondents (71%) reported providing oral cancer examinations for their patients on a regular basis. Respondents who self-assessed highly on oral cancer examination skills, also self-assessed highly on lymph node palpation skills. A strong correlation ($r = 0.765$) was found between self-assessment of these two skills. The self-assessment scores for oral cancer examination skills and lymph node palpation skills were combined to create one score; 80% was the most frequent score.

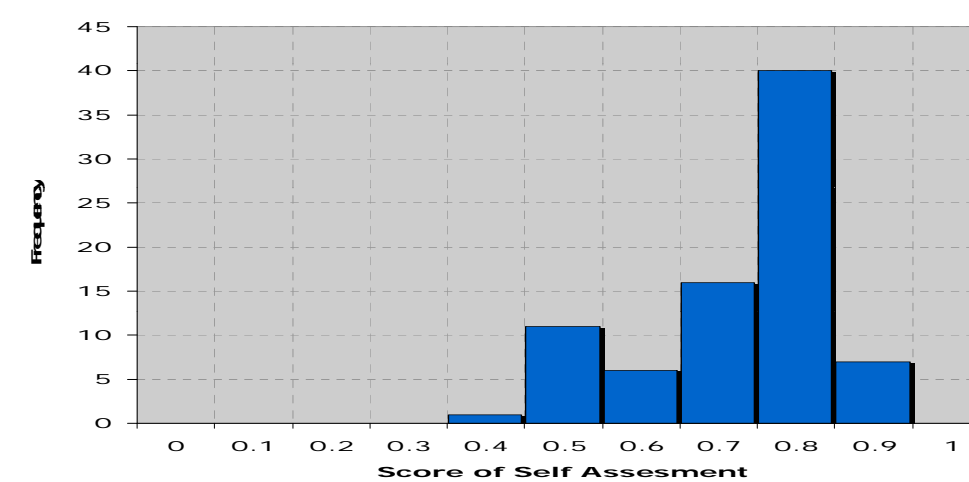


Figure 2. Self-assessment score on oral cancer exam & palpation skills (combined scores)

Prevention Practice: Risk factor identification should begin during assessment of the patient's health history. Respondents reported they routinely assess current tobacco use (100%), past tobacco use (98%) and type or amount of tobacco products used (98%). A smaller number of respondents assess present alcohol use (85%), past alcohol use (63%), and type and amount of alcohol used (56%).

Alcohol use and family history of oral cancer were less frequently addressed than tobacco use. The stigma about asking questions regarding alcohol use still exists among dental practitioners.

	Past alcohol use	Present alcohol use	Type & amount of alcohol	Past tobacco use	Present tobacco use	Type & amount of tobacco	Family history of cancer
Yes	62.96	85.18	55.56	97.54	100	97.50	65.43
No	37.04	14.82	44.44	2.46		2.50	34.57

Table 1. Percent of respondents who determine specific risk factors when assessing patient health history

Time spent on tobacco cessation counseling ranged between 2.5 & 5 minutes with a mean of 3.8 minutes. These findings are consistent with existing research findings.

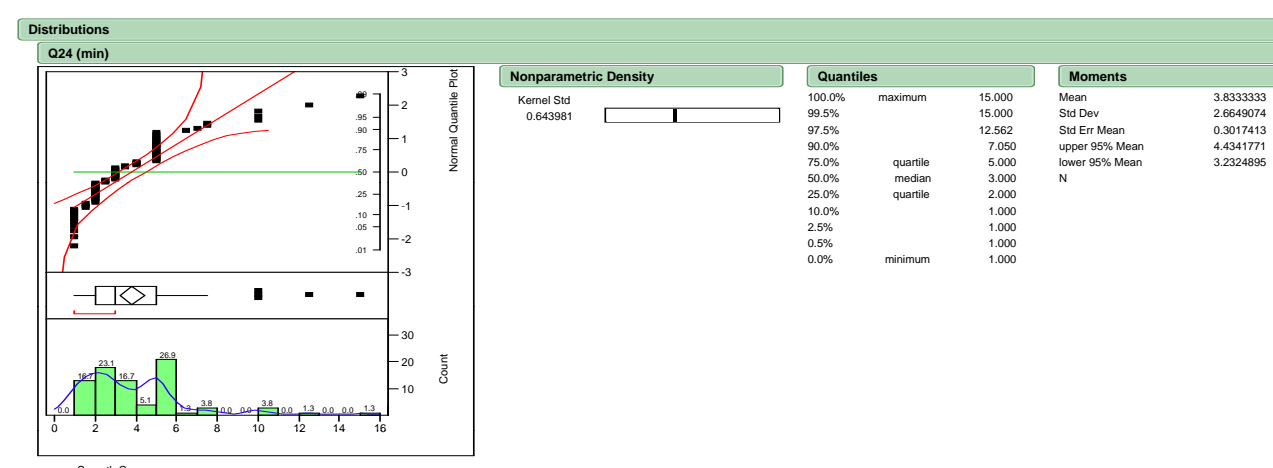


Figure 3. Distribution of time (in minutes) spent by dental hygienists for tobacco cessation counseling

Training: Tobacco is the number one risk factor for oral cancer, and is even more potent when combined with alcohol. Sixty-two respondents (78%) reported being trained for tobacco cessation counseling.

Respondents were asked to self-assess their training on providing tobacco cessation and alcohol cessation counseling. Almost one-third of respondents (32%) felt they had limited training for tobacco cessation counseling and 40% perceived a high need for training on alcohol cessation.

The majority of respondents (78%) felt they need additional training for tobacco cessation counseling. Only 50% felt they should be trained to assess alcohol use & provide alcohol counseling.

A majority of respondents (96%) showed a high interest in taking continuing education courses on oral cancer.

Conclusions

- Dental hygienists should perform annual oral cancer examinations for all patients.
- Survey results indicate that dental hygienists in this study do apply their previous knowledge of oral cancer to clinical practice, but they do not possess the latest information about oral cancer.
- Continuing education courses should be developed for dental hygienists which provide the latest information about oral cancer. These courses should include risk factors, common sites for oral cancer, and precancerous lesions with high potential for malignancies.
- Dental hygienists should discuss the link between tobacco and alcohol use and increased risk for oral cancer when counseling patients.
- Specific protocols for oral cancer examinations should be developed to standardize patient care.
- Future research should assess effectiveness of continuing education courses for increasing knowledge of oral cancer among dental hygienists.

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